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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

LEE, RICHARD J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,778

Applicant(s)

OBRADOR, PERE

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9, 11-17, 19, 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 3, 4, 11, 12, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claims 3 and 4 depend from canceled claim 2, and as such renders the claims indefinite;

(2) claims 11 and 12 depend from canceled claim 10, and as such renders the claims indefinite; and

(3) claims 19 and 20 depend from canceled claim 18, and as such renders the claims indefinite.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, 8, 9, 14, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman of record (US 2003/0112347) in view of Voss et al of record (US 2003/0147640) and Ueno et al of record (5,436,665).

Wyman discloses a method and apparatus for producing still video images using electronic motion video apparatus as shown in Figures 1-3, and substantially the same joint video and still image pipeline for a video camera, method for concurrently processing digital video frames and high resolution still images, and computer readable medium providing instructions for concurrently processing digital video frames and high resolution images (see page 1, sections

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[0007], [0008], page 3, section [0028]) as claimed in claims 1, 6, 8, 9, 14, 15, and 17, comprising substantially the same one or more image sensors (i.e., 103 of Figure 2) capable of concurrently acquiring regular size video frames and high resolution still image frames (see page 3, section [0028]); a sensor controller capable of storing the regular size video frames and the high resolution still image frames into a memory (see page 3, section [0028], page 7, section [0059] and 204 of Figure 2); one or more processors (see page 3, section [0028], and Figure 2) capable of concurrently processing the reduced size video frames and the high resolution still image frames acquired, wherein the reduced size video frames are processed using a video pipeline, and the high resolution still image frames are processed using a high resolution still image pipeline, and wherein the high resolution still image frames are processed concurrently with the reduced size video frames, wherein the processing the high resolution still image frames includes processing the high resolution still image frames in real time (i.e., the continuous saving of video on a motion video medium represents real time processing of the high resolution image frames, see page 1, section [0008]); compressing the reduced size video frames and the high resolution still image frames (see page 5, section [0042]); and wherein the processors are selected from a microprocessor, an application specific integrated circuit (ASIC), and a digital signal processor (i.e., 201 of Figure 2).

Wyman does not particularly disclose the followings:

(a) concurrently processing digital video frames and high resolution still images in burst mode, concurrently acquiring regular size video frames and high resolution still image frames in burst mode, and storing the regular size video frames and the high resolution still image frames acquired during the burst mode into a memory as claimed in claims 1, 9, and 17;

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(b) wherein the regular size video frames are downsampled into reduced size video frames, the reduced size frames have frame sizes smaller than the regular size video frames as claimed in claims 1, 9, and 17; and

(c) upsampling the reduced video frames using motion estimation and information from the high resolution still image frames as claimed in claims 1, 9, and 17

Regarding (a), Voss et al discloses a system and method for capturing and embedding high resolution still image data into a video data stream as shown in Figures 1, 2A, 2B, and 4, and teaches the conventional processing and acquiring digital video frames/regular size video frames and high resolution still image frames in burst mode, and storing the regular size video frames and the high resolution still image frames acquired during the burst mode into a memory (see page 2, sections [0022], [0024], page 3, section [0036], [0037], page 4, section [0039]). Therefore, it would have been obvious to one of ordinary skill in the art, having the Wyman and Voss et al references in front of him/her and the general knowledge of burst mode within digital still and video cameras, would have had no difficulty in providing the burst mode features in processing and storing video frames and high resolution still images concurrently as taught by Voss et al for the joint video and still image pipeline system of Wyman for the same well known capturing of high resolution still images while storing the video so that both the still image and video images are captured concurrently without losing any information purposes as claimed.

Regarding (b) and (c), Ueno et al discloses a motion picture coding apparatus as shown in Figure 1, and teaches the conventional use of an upsampler (35 of Figure 1) for upsampling reduced video frames using motion estimation (i.e., 104 of Figure 1) and information from high resolution still image frames (i.e., as provided by 131 of Figure 4), and downsampling regular

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size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames (i.e., as provided by 29, 102 of Figure 1, see Figures 2, 3A, and column 8, lines 28-45). Therefore, it would have been obvious to one of ordinary skill in the art, having the Wyman, Voss et al, and Ueno et al references in front of him/her and the general knowledge of video motion estimations, would have had no difficulty in providing the upsampling of reduced size video frames using motion estimation and information from the high resolution still image frames, and downsampling of regular size video frames into reduced size frames wherein the reduced size frames have frame sizes smaller than the regular size video frames as taught by Ueno et al as part of the video compression process within Wyman for the same well known compression of video for bandwidth reduction purposes as claimed.

4. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman, Voss et al, and Ueno et al as applied to claims 1, 6, 8, 9, 14, 15, and 17 in the above paragraph (3), and further in view of Adolph et al of record (6,081,295).

The combination of Wyman, Voss et al, and Ueno et al discloses substantially the same joint video and still image pipeline for a video camera, method for concurrently processing digital video frames and high resolution still images, and computer readable medium providing instructions for concurrently processing digital video frames and high resolution images as above, but does not particularly disclose wherein the processing the reduced size video frames includes encoding the reduced size video frames into a standard format by a video transcoding agent as claimed in claims 5 and 13. The particular features of using a video transcoder for transcoding one video format to another type of video format, in general, is however old and well

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recognized in the art, as exemplified by the video transcoder of Adolph et al (see Figure 1, Abstract, column 1, lines 10-25, column 2, lines 47-65). Therefore, it would have been obvious to one of ordinary skill in the art, having the Wyman, Voss et al, Ueno et al, and Adolph et al references in front of him/her and the general knowledge of video transcoders, would have had no difficulty in using the generic teachings of a video transcoder as provided by Adolph et al within the joint video and still image pipeline system of Wyman to thereby process the reduced size video frames by encoding the reduced size video frames into a standard format for the same well known video format conversion for compliance reasons as claimed.

5. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman, Ueno et al, and Voss et al as applied to claims 1, 6, 8, 9, 14, 15, and 17 in the above paragraph (3), and further in view of Bittner et al of record (6,330,400).

The combination of Wyman, Ueno et al, and Voss et al discloses substantially the same joint video and still image pipeline for a video camera, method for concurrently processing digital video frames and high resolution still images, and computer readable medium providing instructions for concurrently processing digital video frames and high resolution images as above, further including downsampling the high resolution still image frames (see page 5, section [0042] of Wyman).

The combination of Wyman, Ueno et al, and Voss et al does not particularly disclose wherein the processing the high resolution still image frames comprises demosaicing the high resolution still image frames using complex demosaicing algorithms, and color correcting the high resolution still image frames using complex color correction algorithms as claimed in claims 7 and 16. However, Bittner et al teaches such technical features of image compression

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(i.e., downsampling) with demosaicing and color correction of images within an ASIC processor (see column 10, lines 35-49). Therefore, it would have been obvious to one of ordinary skill in the art, having the Wyman, Voss et al, Ueno et al, and Bittner et al references in front of him/her and the general knowledge of image manipulations and compressions, would have had no difficulty in providing the demosaicing and color correction algorithms as taught by Bittner et al as part of the processing of the still and video images within joint video and still image pipeline system of Wyman for the same well known correction of color and providing a non distorted color image for viewing purposes as claimed.

6. The applicant argued at pages 7-10 of the amendment filed August 1, 2005 that the rejection of claims 1, 9, and 17 is traversed on the grounds that a prima facie case of obviousness has not been established consistent with MPEG 706.02(j) and that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Appellant's disclosure. It is submitted that contrary to applicant's contention, the rejection of claims 1, 9, and 17 are based on the combination of Wyman, Voss et al, and Ueno et al, and not based applicant's disclosure. It is further submitted that the test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art, and in the present case the combination references as a whole renders obvious the claimed invention (see *In re Sheckler*, 168 USPQ 716 (CCPA 1971); *In re McLaughlin* 170 USPQ 209 (CCPA 1971); *In re Young* 159 USPQ 725 (CCPA 1968)).

Regarding the applicant's arguments at pages 10-12 of the amendment filed August 1, 2005 concerning that "... Voss et al makes no teaching or suggestion regarding upsampling the reduced video frames using motion estimation and information from the high resolution still

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image frames ... Voss is cited as teaching concurrent processing of video frames and still images frames ... but is not cited as teaching either downsampling regular size video frames ... nor upsampling the reduced video frames using motion estimation and information from the high resolution still image frames ... Ueno et al cannot be said to teach or suggest upsampling the reduced size video frames using motion estimation and information from the high resolution still image frames. As best, Ueno et al suggest the idea of upsampling video frames using motion estimation. However, because there is no discussion relating to high resolution still images, Ueno et al cannot be said to suggest upsampling video frames using information from high resolution still image frames ...”, the Examiner respectfully disagrees. Ueno et al clearly teaches, as agreed by the applicant, the particular upsampling of video frames using motion estimation. The upsampled low resolution image as shown in Figure 4 of Ueno et al represents the upsampled reduced size video frames as claimed and the high resolution prediction selection circuit 131 as shown in Figure 4 of Ueno et al provides the information from the high resolution still image frames as claimed. Therefore, it is submitted again that upsampler 35 of Figure 1 of Ueno et al provides substantially the same if not the same upsampling of reduced video frames using motion estimation (i.e., 104 of Figure 1) and information from high resolution still image frames (i.e., as provided by 131 of Figure 4).


Regarding the applicant's arguments at pages 12-13 of the amendment filed August 1, 2005 concerning in general the rejection of the dependent claims, such arguments have been addressed in the above.

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7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

10/13/05

